

Construction Methods

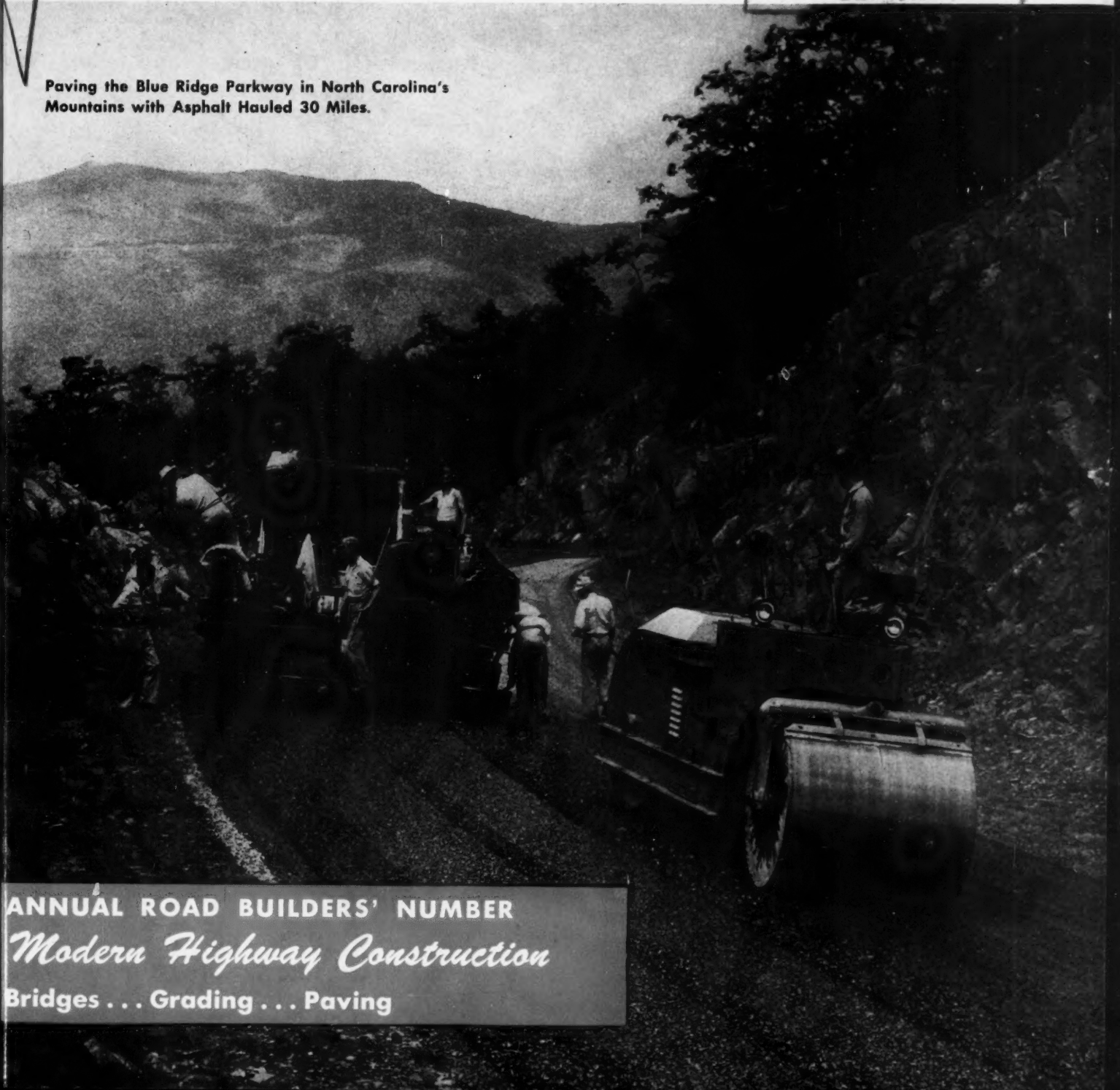
FEBRUARY 1947

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DETROIT

Paving the Blue Ridge Parkway in North Carolina's
Mountains with Asphalt Hauled 30 Miles.



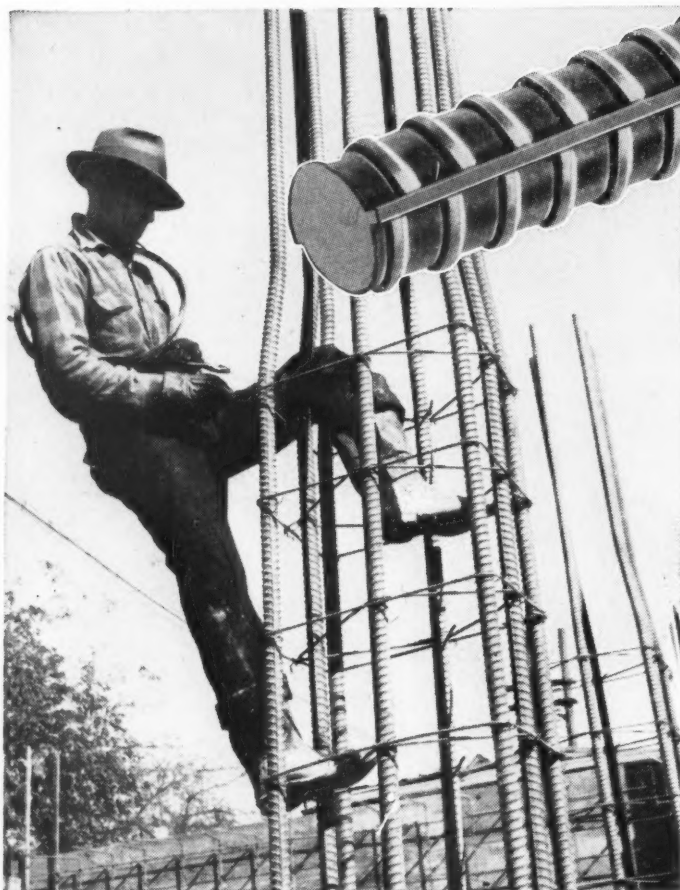
ANNUAL ROAD BUILDERS' NUMBER

Modern Highway Construction

Bridges . . . Grading . . . Paving

Greater Bond Strength

With Inland Hi-Bond Bars



More and more architects, engineers and contractors are recognizing the superior qualities of HI-BOND Reinforcing Bars. On job after job you'll find them specified where sounder, finer concrete structures are desired.

The HI-BOND bar adapts steel reinforcement to modern design, provides greatly increased load transfer between concrete and steel . . . actually gives a bearing area more than double that of the usual commercial type of reinforcing bar.

Numerous tests by independent laboratories report unanimous agreement that HI-BOND Reinforcing Bars offer superior resistance to slip in all positions, minimize widths of cracks and produce a more efficient transfer of stress at splices. Helical ribs dovetail at intersections so that the simplest tie will hold firmly . . . to reduce time, labor and wire in construction.

All of these advantages combine to improve the quality of your concrete construction, offer greater latitude on design while substantially lowering construction costs by speeding the work. Today, the supply is limited. When it is available you'll want to specify and use HI-BOND bars. Write for descriptive bulletin.

- **Higher Bonding Strength!**
 - **Greater Mechanical Grip!**
- **Higher Stress Transfer!**
 - **Better Crack Control!**
- **Greater Resistance to Slip!**
 - **Higher Design Stresses Possible!**
- **Lower Construction Costs!**

INLAND STEEL

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OTHER PRODUCTS INCLUDE: BARS, STRUCTURALS, PLATES, SHEETS, STRIP, TIN PLATE, PILING, FLOOR PLATE, RAILS, TRACK ACCESSORIES

Cuts and Fills

THIS ISSUE is largely devoted to highways to emphasize the importance of road building in this country and to review the latest developments in construction procedure. Last year road construction and maintenance on state highways alone topped a billion dollars; this year the figures are estimated at 1.4 billions. This is big business that, with streets and secondary roads added, promises to keep the highway contractors mightily busy this coming season.

• • •

LABOR, MATERIALS AND SAFETY were prominent topics discussed at the Associated General Contractors meeting in Chicago last month. Contractors are apprehensive of future skilled labor supply unless the apprenticeship programs are greatly enlarged. Reports indicate several unions still short-sightedly resist apprentice training. Increased interest in safety will help conserve what manpower is available.

• • •

PRESIDENT TRUMAN'S ANNOUNCEMENT of the AGC-AFL pact to form joint contractor-labor committees to handle labor disputes in heavy, highway and building construction is welcome news. The plan will get an early workout, for the AFL carpenters are claiming handling of all lumber from the time it reaches the job, including form stripping. Heretofore, except for actual erection of lumber, handling and stripping has been done by AFL laborers. Despite the fact that local unions can supply but a small part of current demand for carpenters, the carpenters are apparently determined to whittle down the power of the laborers, the largest of all AFL Building Trade groups.

• • •

FRANK CREEDON, new Housing Expediter, told the AGC convention that "there is no answer to the housing problem except housing," and he hopes to see a million units started this year. He is stressing rental apartments, and has raised the former maximum of \$80 shelter rent to an average of \$80, with small allowances for extras, which should stimulate apartment building. Materials still remain the key to housing, but the supply is rapidly improving.

• • •

A CONTRACTOR MORTALITY rate of 45 percent since 1939 was cited by Public Roads Commissioner Thomas H. MacDonald at the AGC meeting. He said that 5,614 contractors were at work on federal aid projects during 1935-40, but only 3,057 took work during 1940-46. Some 350 new contractors showed up on the low-bid lists in 1946, and while some of the old firms are returning to road building, the Commissioner is worried over the shortage of contractors.

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Construction Methods

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A. E. PAXTON, Publisher

WALDO G. BOWMAN, Editor

HAROLD W. RICHARDSON, Executive Editor ROBERT K. TOMLIN, Managing Editor
New York: Nello Fitzgerald, Patricia McGerr, Henry T. Perez

Chicago: Vincent B. Smith

San Francisco: N. A. Bowers, L. L. Wise

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FEBRUARY, 1947

Volume 29



Number 2

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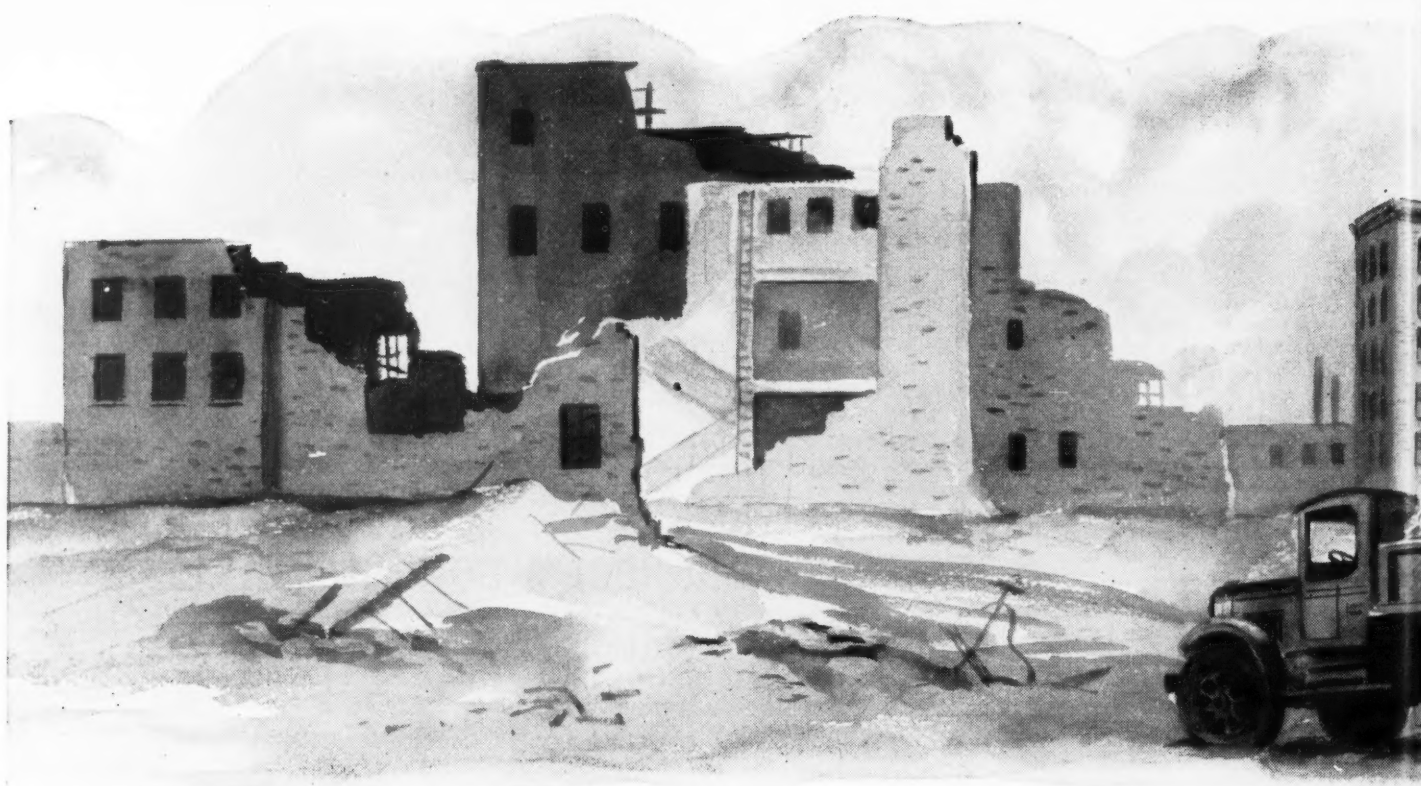
Name

Old Address

New Address

New Company Connection

New Title or Position



We were behind the 8-ball until...

We were going crazy on this big housing project. A group of old buildings had been razed, and it was our job to get the debris out of there but *fast*! Hard as we worked, we just couldn't seem to stay on schedule.

I'd probably be a gibbering idiot if our Oliver "Cletrac" dealer hadn't happened to drive out. "Why not put Sargent OVERHEADS on those Cletracs of yours?" he grinned. "Then you can back up to that mess, get a load, and pull straight up to your truck, without turning, and dump the load. You'll save enough time to catch up to schedule. I've got a few OVERHEADS in my place now. Send in your tractors, and my boys will mount them tonight."

Well to cut the story short, that's just what I did, and we not only caught up to schedule, we beat it! That quick service certainly got us out from behind the eight-ball. The Oliver "Cletrac" dealer is a good guy to know.

Cletrac

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The OLIVER Corporation

Industrial Division: 19300 Euclid Ave., Cleveland 17, Ohio

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"THE SIGN OF EXTRA SERVICE"

THE JOB JESTER

CARTOONS DRAWN FOR CONSTRUCTION METHODS



"And the next time we have a letting, don't hire a tobacco auctioneer."



"I don't think road pavers should be allowed to bid on roofing jobs."

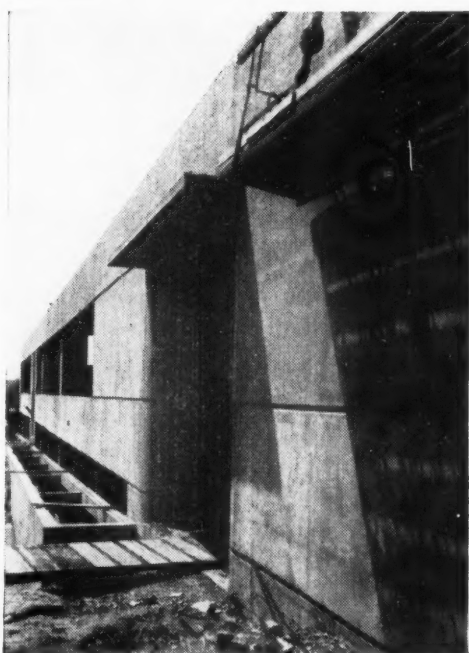


FIREMEN KNOW WHAT IS

FIRE-SAFE



**'INCOR' SPEEDS CONCRETING
OF HUGE, NEW REPAIR SHOP
FOR NEW YORK CITY'S
FIRE DEPARTMENT**



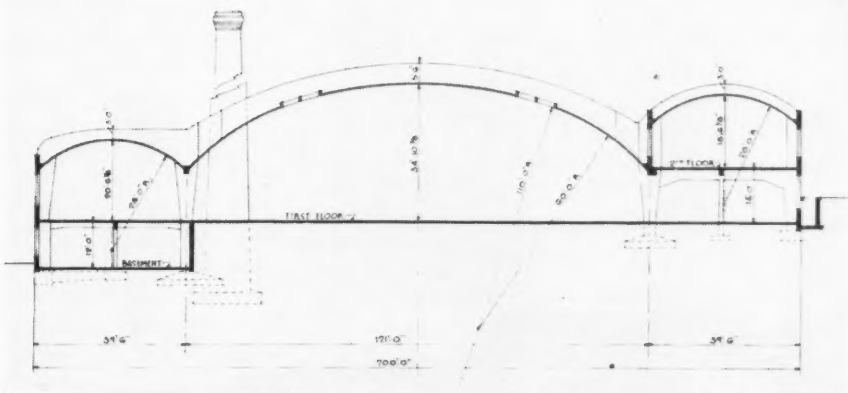
New York City Fire Dept. Repair Shop, Long Island City. City of New York, Department of Public Works; Architects: A. G. Lorimer, former Chief; A. J. Daidone, present Acting Chief, Bureau of Architecture. Engineers, Roberts & Schaefer Co., Chicago. Ready-Mix Concrete, Central Concrete, Inc., Brooklyn, N. Y.

General Contractor:
Corbetta Construction Co., New York

NEW YORK CITY'S FIRE DEPARTMENT repairs its own equipment—21,000 repair jobs a year. Replacing old cramped quarters is this new, all-concrete Repair Shop, covering two city blocks in Long Island City. After analyzing various types of construction, final decision was architectural concrete for utmost fire-safety and barrel-arch construction for maximum unobstructed floor space. The repair unit, with elbow room for handling 90 vehicles at a time, is located under the central arch with its 120-ft. clear span. Side and end sections house related facilities.

'INCOR' 24-HOUR CEMENT was used in barrel-arch structures; elsewhere, LONE STAR CEMENT was used. 'INCOR'* saved time waiting for concrete to harden; even in cool weather, safe stripping strengths were obtained within 48 hours. Here is the initial and long-time economy of architectural concrete . . . good functional design at its fire-safe best.

*Reg. U. S. Pat. Off.



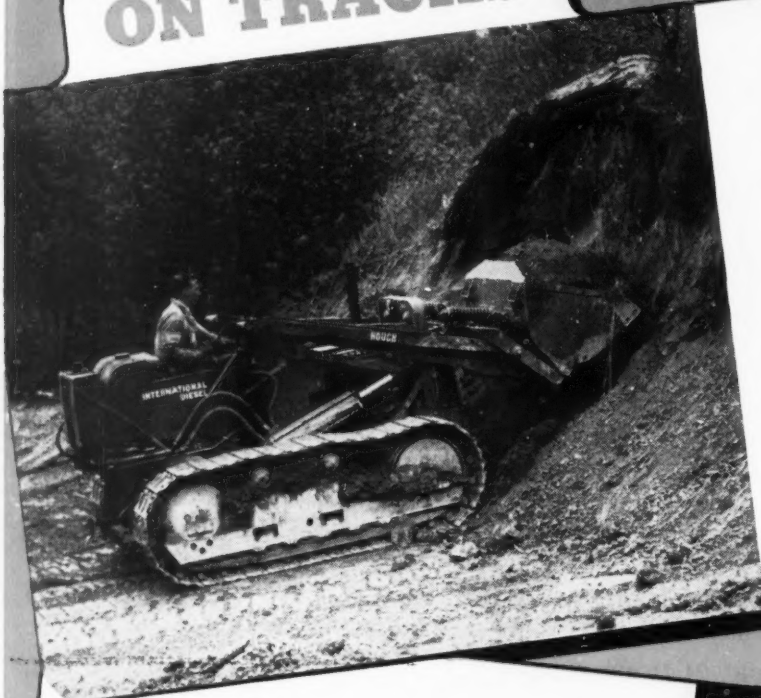
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HOUGH "HUFF" Digging Power

ON TRACKS



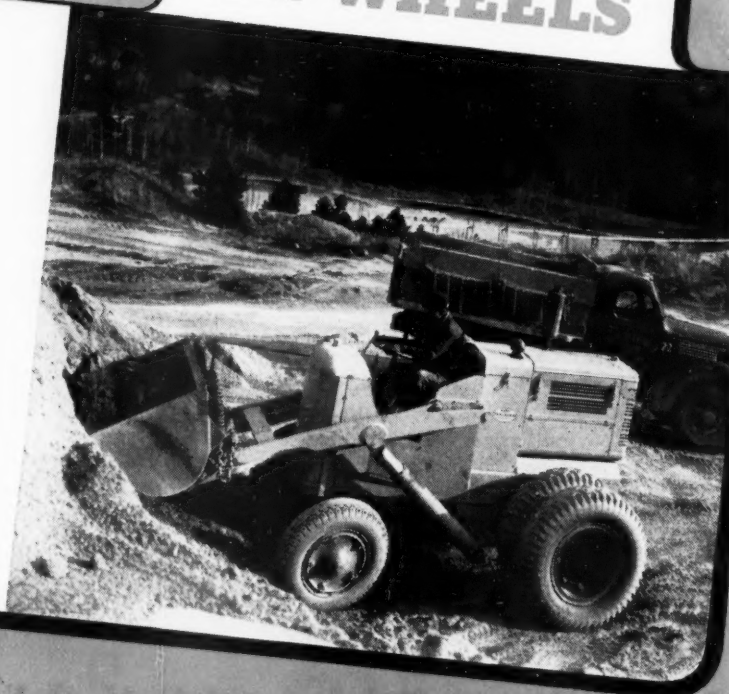
MODEL 9-A BULLDOZER SHOVEL

Here's full 1 yd. capacity in a Bulldozer-Shovel built specifically for the International T-9 or TD-9 TracTrac-Tor. The Model 9-A is a real DUAL-PURPOSE unit — a rugged versatile Shovel and a powerful full-fledged Bulldozer, to handle a wide variety of excavating, stripping, loading, grading or any bulk materials. Packed with exclusive features — unique in design, thoroughly job proved in every detail, the Hough Model 9-A can be relied upon for maximum daily yardage at the lowest net cost per yard.

ON WHEELS

MODEL HL Payloader

For construction, excavation, maintenance or general bulk material handling the powerful 1 cu. yd. HL Payloader can take over and cut yardage costs sharply. Built big and powerful, easily maneuvered, perfectly balanced, the HL is built from the ground up for heavy duty material handling service. Digs, loads, carries, dumps and spreads; available with bulldozer blade and crane attachment, the HL is the most versatile unit of its kind.



SEND for Catalog
No. 164 on the Model 9-A
and Catalog No. 163 on
the HL today.

THE FRANK G. HOUGH CO.
MATERIAL HANDLING EQUIPMENT SINCE 1920
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46 EUCLIDS

*Moving Earth
and Rock for*

WORLD'S HIGHEST EARTH-FILL DAM



● A fleet of 20 Bottom-Dump and 26 Rear-Dump Euclids is moving earth and rock for construction of the world's highest earth fill structure—Anderson Ranch Dam near Boise, Idaho. Now nearing completion, this combination flood control, irrigation and power dam will be 456 feet high and will contain more than 9,000,000 cu. yds. of earth and rock. Sponsored by the U. S. Bureau of Reclamation, it is being built by Morrison-Shea-Twaits-Winston under the supervision of V. A. Roberts, project manager for the contractors.

Records from all types of mining and construction jobs are evidence of Bottom-Dump and Rear-Dump Euclid efficiency and long life on short and long hauls. Leading contractors prefer Euclids because of their speed in hauling and dumping, and for their versatility and profitable performance. Your Euclid distributor or representative will be glad to discuss your present or future hauling equipment requirements and provide helpful information.

TCP: Rear-Dump Euclids place 15-ton loads of earth and rock on the fill.

CENTER: Bottom-Dump Euclid being loaded by a 5-yd. shovel with fill material from the stock pile.



Steady, universal hitch and ample clearances for drawbar and doors result in faster turning—a definite Bottom-Dump Euclid advantage.

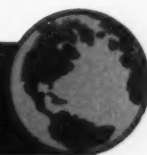
The EUCLID ROAD MACHINERY Co.
CLEVELAND 17, OHIO



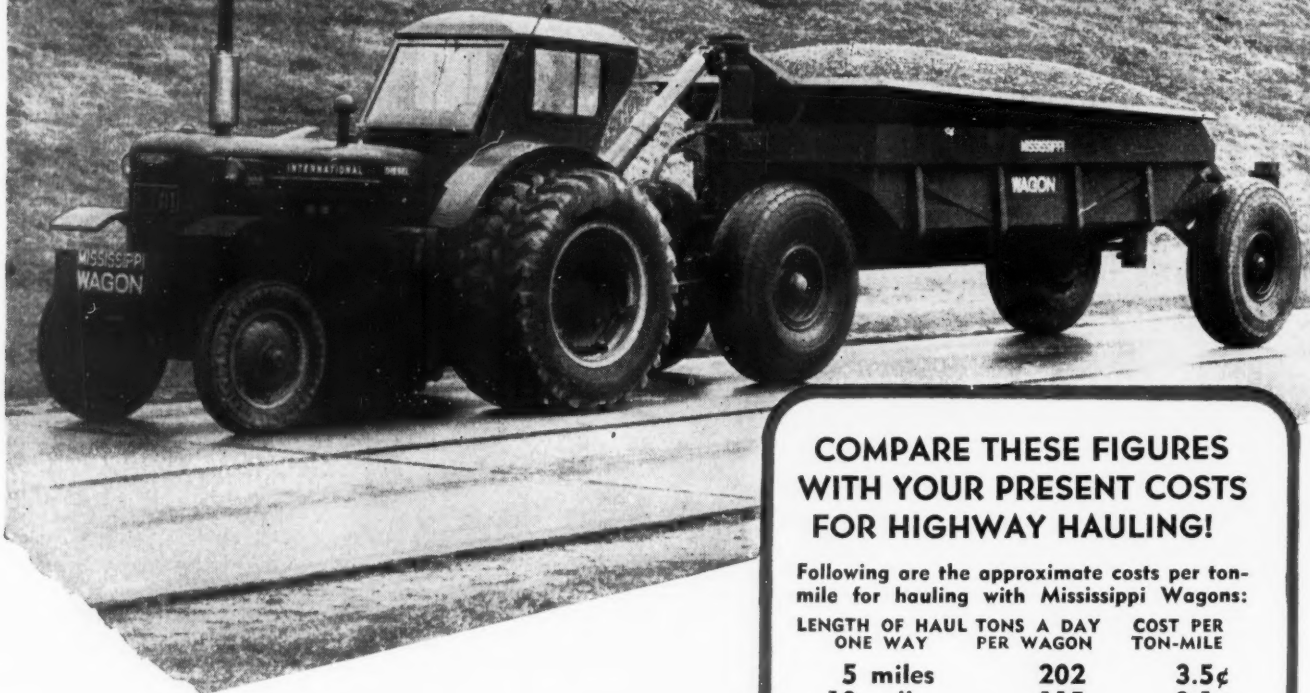
EUCLIDS



Move the Earth



All You Need is a LICENSE TAG—



—to Haul on the Highway
with **MISSISSIPPI WAGONS!**

Yes—and Mississippi Wagons are the ONLY hauling units of their type on which a license tag can be used!

Four-axle construction, made possible by the weight-transfer feature found exclusively on Mississippi Wagons, is the reason for their ability to operate efficiently, legally, and economically both ON and OFF the highway.

Four axles not only provide maximum flotation over soft ground on construction work, but serve to reduce axle-loadings for road and street travel. As a result, the Mississippi Wagon is the only bottom-dump hauling unit powered by a heavy industrial tractor that can haul payloads of 27,000 pounds on high-

COMPARE THESE FIGURES WITH YOUR PRESENT COSTS FOR HIGHWAY HAULING!

Following are the approximate costs per ton-mile for hauling with Mississippi Wagons:

LENGTH OF HAUL ONE WAY	TONS A DAY PER WAGON	COST PER TON-MILE
5 miles	202	3.5¢
10 "	115	3.1¢
15 "	81	2.9¢
50 "	27	2.6¢

The figures are based on a 10-hour day, an average speed of 20 m.p.h., payloads of 27,000 pounds, 10 minutes loading and dumping time per trip, and a total daily cost of \$35.00 per Wagon, covering fuel, lubricants, driver's wage (average), reserves for depreciation, repair parts and labor, tire wear over abrasive concrete roads, insurance, social security, and miscellaneous expense.

ways without exceeding the 18,000-pound axle-loading limit set by most states.

With all-round performance like this available, why make or carry a double investment in hauling equipment? Let a single investment in MISSISSIPPI WAGONS put you in a position to handle both construction and long-haul jobs . . . at costs that will enable you to meet and beat tough competition in the big days ahead.

M-R-S MANUFACTURING COMPANY
Jackson and Flora, Mississippi

MISSISSIPPI WAGON

*The World's Most
Modern Hauling Unit*

A development of
B.F. Goodrich
FIRST IN RUBBER



Earth Mover rolls easily — resists sideslip **Sure footing in mud, sand, loose dirt**

WHERE free-rolling wheels are used, on dirt wagons, trailers, scrapers, etc., flotation and easy rolling are *musts* — for soft going can be the toughest kind of going! Tough, too, are the problems of side slippage and the bruising impacts when tires under ton-loads hit rocks and other obstructions.

These tire problems, peculiar to towed vehicles, were analyzed by B. F. Goodrich engineers. Today, the *answers* are all rolled into one tire — the B. F. Goodrich Earth Mover, shown above. Notice the smooth, flat tread and the special shoulder contour. These features are specifically designed to enhance the tire's extra large contact

area and give maximum possible flotation.

Note, too, there are no "humps" in the tread design. The flat, continuous running ribs allow unusually easy rolling. Less power is used to move loads through sand, mud, or deep, loose dirt. The heavy curb strips along the side-wall protect the Earth Mover against scuffing. And those sharp angles around the tread surface give positive protection against treacherous sideslipping.

The Earth Mover is specially designed "inside", too. The tread rubber is compounded to give long, even wear. *Four to six breakers* — layers of rubber-coated nylon cord — give extra bruise

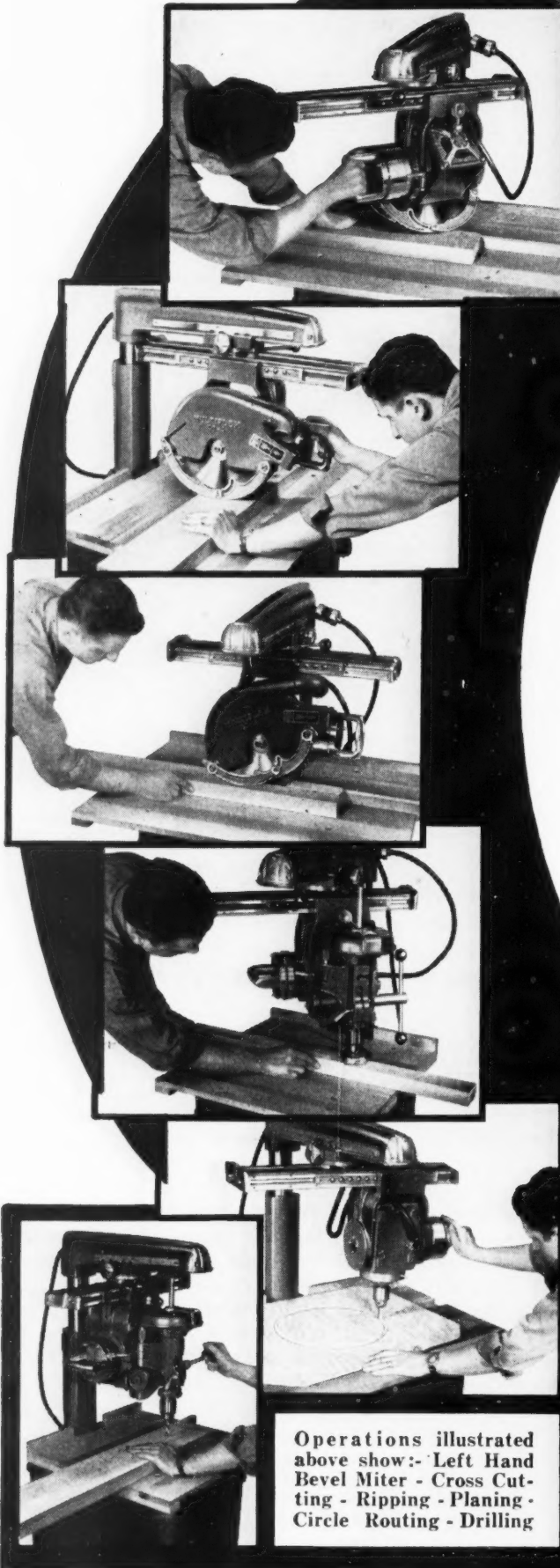
resistance, extra protection against breaks, ply separation, and blow-outs.

Users of the Earth Mover — and of other B. F. Goodrich tires designed to meet special needs — report longer tire wear, time savings, and lowered repair bills. You, too, can make savings with the B. F. Goodrich Tires that suit *your* needs. See the B. F. Goodrich dealer or write us direct. *The B. F. Goodrich Company, Akron, O.*

Truck Tires **BY**
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DOES ALL

Quickly- Accurately- Safely!



It's no longer necessary for the contractor or builder to take a whole truckload of single purpose wood working machinery out to the job. The MULTIPLEX will handle practically anything that comes up, and efficiently too. The rugged, yet precision, construction of the exclusive Versatile Elbow or center pivot track arm means accurate cuts at any angle. Greater mitering capacity -- difficult left hand as well as conventional right hand miters up to 90° handled with ease. No idle travel of cutting head. The carefully calibrated eye-level scales permit quick set ups for any operation.

As optional equipment for Model 30A and 40A saws only, a radial arm drill press, quickly attached, makes possible many other wood working operations.

Write for full information
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MULTIPLEX

Radial-Arm Saws

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Operations illustrated
above show:- Left Hand
Bevel Miter - Cross Cut-
ting - Ripping - Planing -
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HOW TO DIG A BASEMENT



MILLIONS of houses, apartments, new plants! How many? No one knows!—but most of them will have basements. You're going to need a Northwest Pullshovel or Shovel!

The Northwest Pullshovel is an ideal basement rig. It works from the top; no ramp is necessary for bringing the machine out of the hole. No trucks go into the hole. Top soil is quickly and easily spoiled well out of the way. Excavation for water lines and other utilities are dug at the same time as main excavation.

—And the Pullshovel is quickly convertible to a standard Shovel, Crane or Dragline so your money isn't tied up in a one-purpose machine.

Here's a real profit maker for that future basement work. Better plan ahead for a Northwest and follow the Northwest Crowd.

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*Follow the
Northwest crowd!*

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when you have
a real Rock Shovel
you won't have
to worry about
output in dirt*

NORTHWEST

SHOVELS • • CRANES • • DRAGLINES • • PULLSHOVELS

The Embarrassment of Success



CATERPILLAR Diesel

REG. U.S. PAT. OFF.
ENGINES • TRACTORS • MOTOR GRADERS • EARTHMOVING EQUIPMENT

EVERY now and then a manufacturer succeeds in making a product so outstanding that public demand for it overwhelms production facilities. In his zeal for winning friends he finds himself making enemies — people eager to buy who cannot be assured immediate or even early delivery.

Thus, the earnestness the manufacturer has given to years of research and development — of product improvement and still better product performance — of efficient manufacture and unusual customer service . . . seems to come back to haunt him.

It is the embarrassment of success.

In becoming the world's leading manufacturer of Diesel engines, track-type tractors and motor graders, "Caterpillar" found many buyers forming a waiting line during the years when all products went into war use. To that waiting line were added many more whose favor was won by the illustrious war performance of these machines.

Thus, despite the fact that "Caterpillar" production is at a high point, demand is still outrunning supply. To catch up — and also to provide an extra margin of facilities for future needs — production is being increased as rapidly as possible by an expansion program that is adding *50 per cent more plant*.

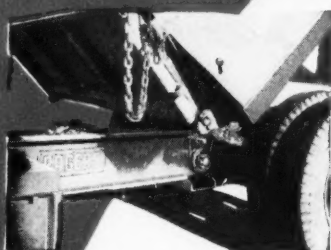
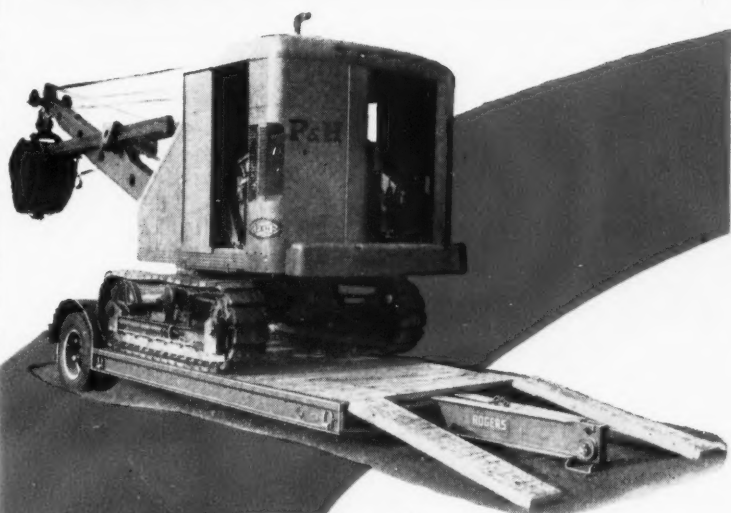
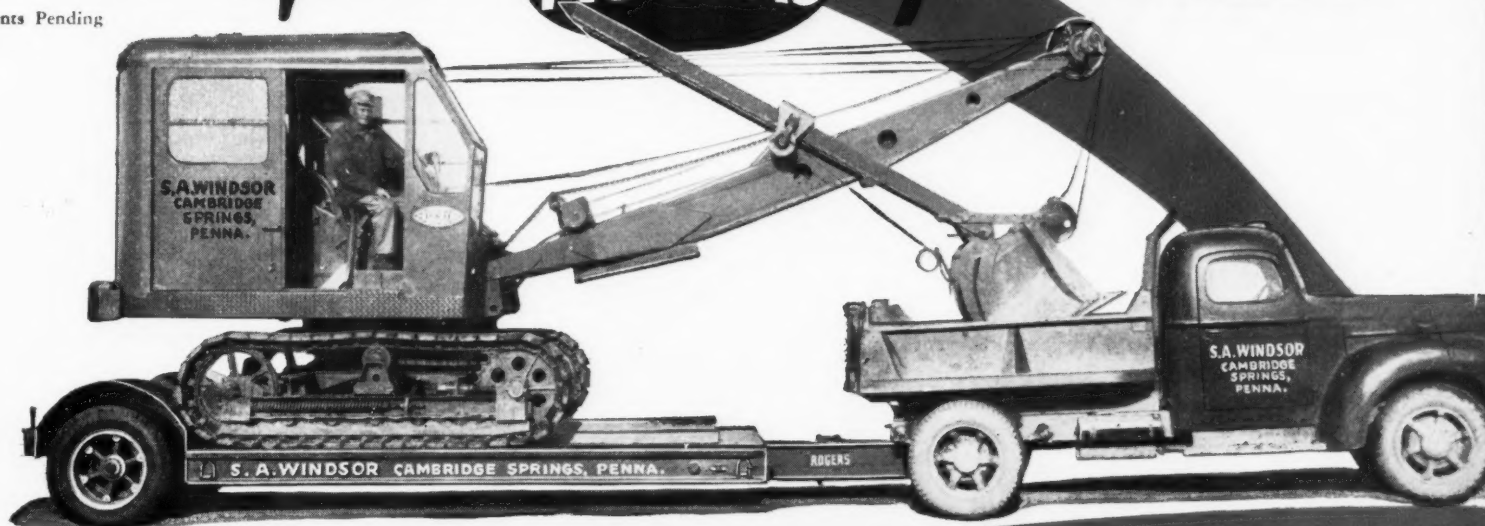
"Caterpillar" is deeply conscious of the problems of the many users who prefer and patiently wait for "Caterpillar" products. "Caterpillar" thanks every customer for such patience in awaiting his turn on deliveries. You can be sure that "Caterpillar" effort is the human utmost. It is live, resourceful — determined that, even in the face of material shortages and disturbed economic conditions, there shall be no unnecessary delays.

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS

TAGALONG FRONTLOADER

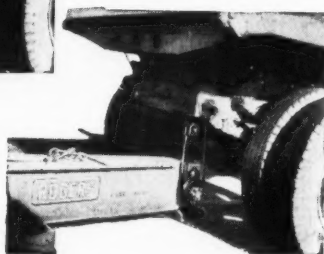
the New ROGERS TRAILER

Patents Pending



Body lowered to relax cable and permit engaging lifting sheave. (below)

Drawbar raised engaging towing tongue. Safety pin in place ready to "roll" when body is lowered. (above)



TAGALONG FRONTLOADER, available in 10 and 20 ton capacity sizes, is an appropriate name for this new Rogers Trailer especially designed to haul small and medium equipment and be towed by a dump truck.

Equipment is loaded from the front—the dump body elevated to relax cable and engage sheave—then lowered to raise the drawbar which inserts towing tongue into drawbar.

With safety pin in place the trailer "tags along" at truck speed, getting equipment to and from jobs without delay—more quickly—and at a new low cost.

Write for information or mail the coupon below for extra prompt service.

The large catalog describing the general line of Rogers Trailers will also be mailed on request. Ask for it.

ROGERS BROTHERS CORPORATION
220 ORCHARD ST. • ALBION, PENNA.

EXPERIENCE
builds 'em



PERFORMANCE
sells 'em



Heavy duty trailers available in all sizes for all purposes.

For Complete Information Quickly mail this coupon

Rogers Bros. Corp., 220 Orchard St., Albion, Penna. Gentlemen:

Please mail me the literature checked below

- ☐ the Tagalong Frontloader Trailer
☐ the General Catalog of Rogers Trailers

Name.....

Address.....City.....

Company.....



FRAM CUTS BREAKDOWNS HELPS EQUIPMENT KEEP GOING

You're making money when your equipment's on the job, turning out the work. But you're *losing* money when equipment "knocks off" for a trip to the repair shop—and *much of this loss isn't necessary!* Because with Fram oil filters, equipment stays on the job longer, operating costs are less, production goes up!

The reason you get these *positive* results is because Fram gives you *positive protection* . . . by trapping all abrasives that enter the engine lubricant . . . by eliminating sludge, by keeping oil free of contaminants. Thus Fram prevents wear, cuts breakdowns, overhauls and idle time—saves you work, time, money!

There's a Fram oil filter correctly engineered for practically any type of gasoline, gas or Diesel engine and for any conventional pressure type lubricating system. If your equipment already has filters, install genuine, Fram replacement cartridges to step up performance. Fram Corporation, Providence 16, R. I. In Canada: J. C. Adams Co., Ltd. Toronto.

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Cleans the Oil that

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ARE BACK!
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POWER**



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